

FIG. 1

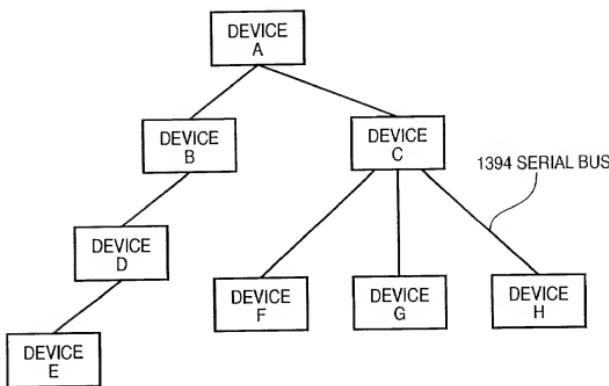


FIG. 2

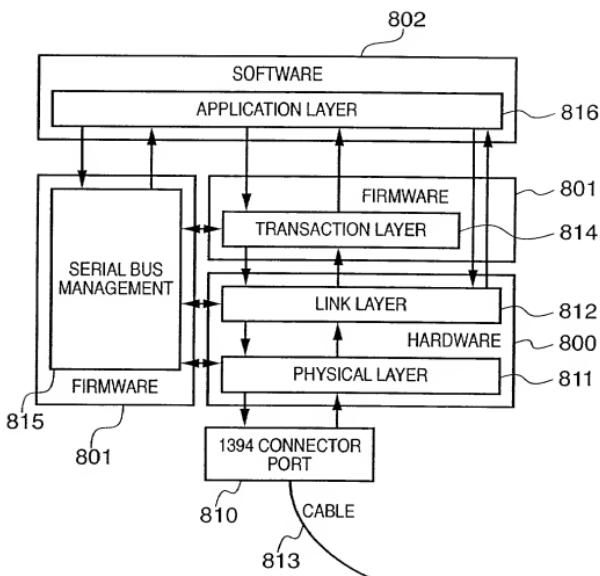


FIG. 3

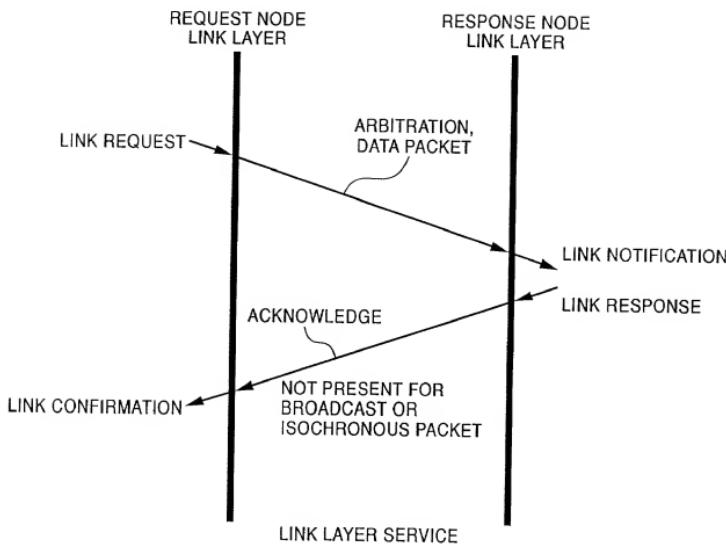


FIG. 4

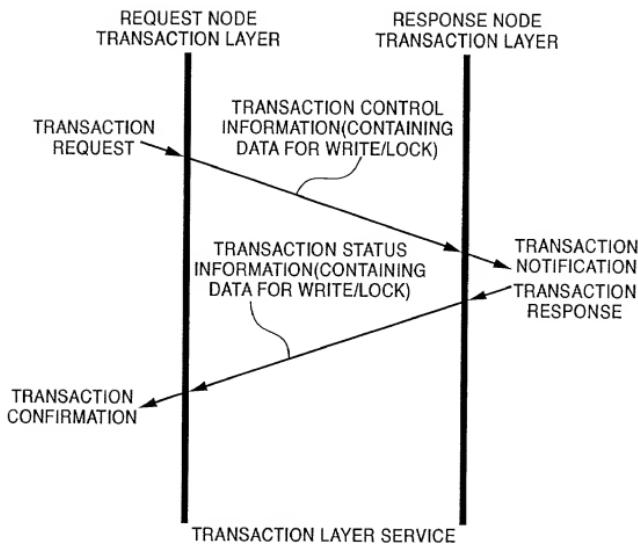


FIG. 5

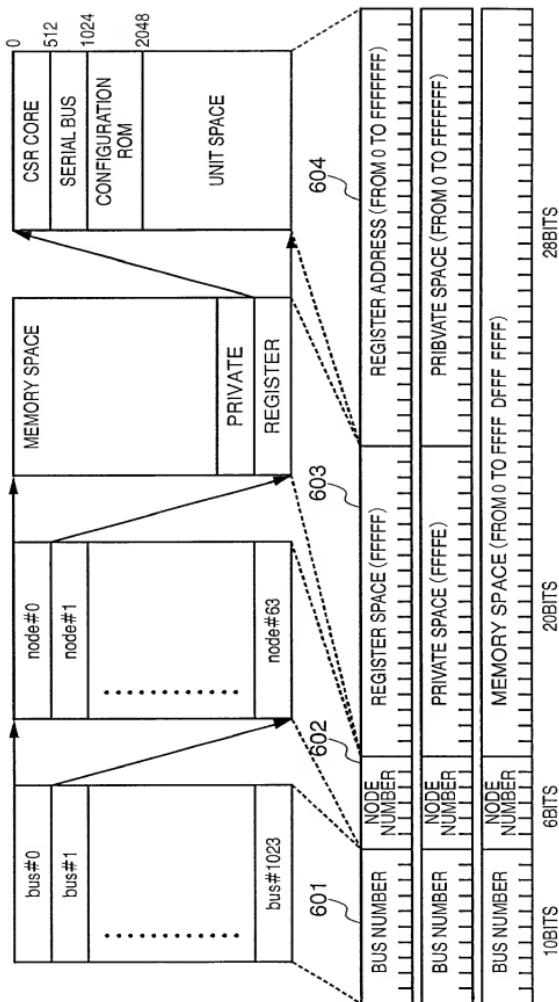


FIG. 6

CSR CORE REGISTER		
OFFSET (HEXADECIMAL)	REGISTER NAME	FUNCTION
000	STATE_CLEAR	STATE AND CONTROL INFORMATION
004	STATE_SET	INFORMATION REPRESENTING STATE_CLEAR WRITE
008	NODE_IDS	BUS ID + NODE ID
00C	RESET_START	BUS IS RESET BY WRITE IN THIS AREA
010~014	INDIRECT_ADDRESS, INDIRECT_DATA	REGISTER FOR ACCESSING FOR LARGER THAN 1K
018~01C	SPLIT_TIMEOUT	VALUE OF TIMER FOR DETECTING TIMEOUT OF SPLIT TRANSACTION
020~02C	ARGUMENT, TEST_START, TEST_STATUS	REGISTER FOR DIAGNOSIS
030~04C	UNITS_BASE, UNITS_BOUND, MEMORY_BASE, MEMORY_BOUND	NOT PREPARED FOR IEEE1394
050~054	INTERRUPT_TARGET, INTERRUPT_MASK	INTERRUPT NOTIFICATION REGISTER
058~07C	CLOCK_VALUE, CLOCK_TICK_PERIOD, CLOCK_STROBE_ARRIVED, CLOCK_INFO	NOT PREPARED FOR IEEE1394
080~0FC	MESSAGE_REQUEST, MESSAGE_RESPONSE	MESSAGE NOTIFICATION REGISTER
100~17C		RESERVATION
180~1FC	ERROR_LOG_BUFFER	RESERVATION FOR IEEE1394

FIG. 7

SERIAL BUS REGISTER		
OFFSET (HEXADECIMAL)	REGISTER NAME	FUNCTION
200	CYCLE_TIME	COUNTER FOR ISOCHRONOUS TRANSFER
204	BUS_TIME	REGISTER FOR TIME SYNCHRONIZATION
208	POWER_FAIL_IMMINENT	REGISTER RELATED TO POWER SUPPLY
20C	POWER_SOURCE	
210	BUSY_TIMEOUT	CONTROLLING RETRY OF TRANSACTION LAYER
214 ~ 218		RESERVATION
21C	BUS_MANAGER_ID	NODE ID OF BUS MANAGER
220	BANDWIDTH_AVAILABLE	MANAGING BAND FOR ISOCHRONOUS TRANSFER
224 ~ 228	CHANNELS_AVAILABLE	MANAGING CHANNEL NUMBER OF ISOCHRONOUS TRANSFER
22C	MAINT_CONTROL	
230	MAINT.Utility	REGISTER FOR DIAGNOSIS
234 ~ 3FC		RESERVATION

FIG. 8

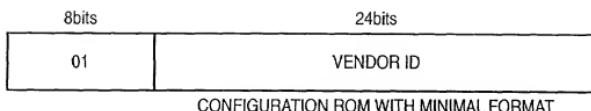


FIG. 9

The diagram illustrates a hierarchical data structure, likely a memory map or configuration table, organized into several layers. The structure is represented as a vertical stack of horizontal rows, each containing specific data fields. The layers are labeled on the right side of the diagram, connected by curved arrows:

- 1001:** Bus Info Block Length, ROM Length, CRC
- 1002:** Bus Info Block
- 1003:** Root Directory
- 1004:** Key, Entry_value
- 1005:** Node Dependent Info Directory
- 1006:** Instance Directory
- 1007:** Root & Unit Leaves
- 1008:** Unit Directory
- 1009:** Vendor Dependent Information
- 1010:** Key, Entry_value

The data fields in each row are as follows:

- Row 1001:** Bus Info Block Length, ROM Length, CRC
- Row 1002:** Bus Info Block
- Row 1003:** Root Directory
- Row 1004:** Key, Entry_value
- Row 1005:** Node Dependent Info Directory
- Row 1006:** Instance Directory
- Row 1007:** Root & Unit Leaves
- Row 1008:** Unit Directory
- Row 1009:** Vendor Dependent Information
- Row 1010:** Key, Entry_value

FIG. 10

SERIAL BUS DEVICE REGISTER		
OFFSET (HEXADECIMAL)	REGISTER NAME	FUNCTION
800 FFC		RESERVATION
1000 13FC	TOPOLOGY_MAP	SERIAL BUS CONFIGURATION INFORMATION
1400 1FFC		RESERVATION
2000 2FFC	SPEED_MAP	SERIAL BUS TRANSFER RATE INFORMATION
3000 FFFC		RESERVATION

FIG. 11

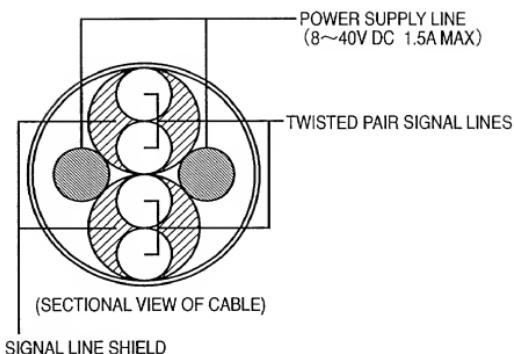
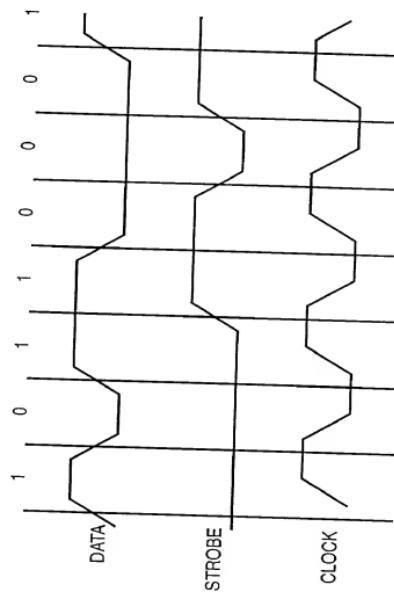
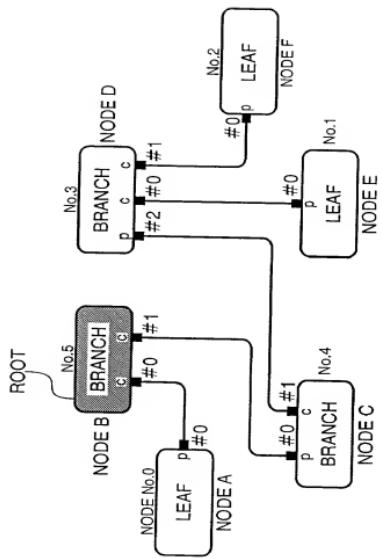


FIG. 12



(CLOCK IS OBTAINED BY PERFORMING EXCLUSIVE OR DATA AND STROBE)

FIG. 13



PORT
p : PARENT PORT CONNECTED TO PARENT NODE
c : CHILD PORT CONNECTED TO CHILD NODE

FIG. 14

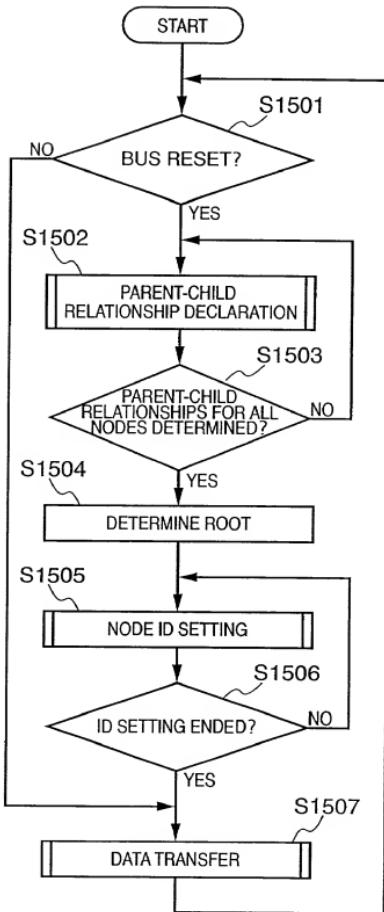


FIG. 15

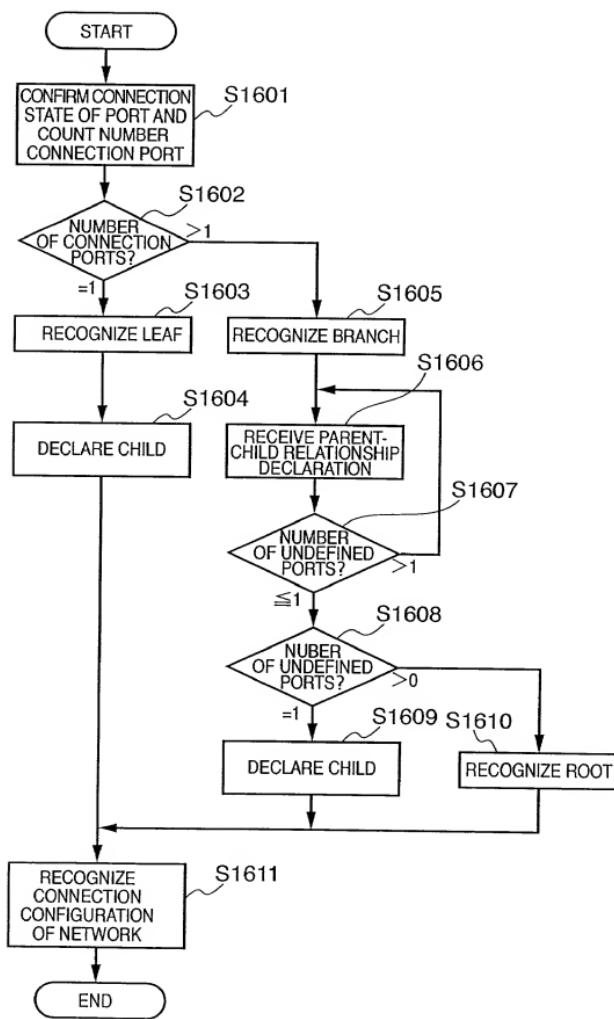


FIG. 16

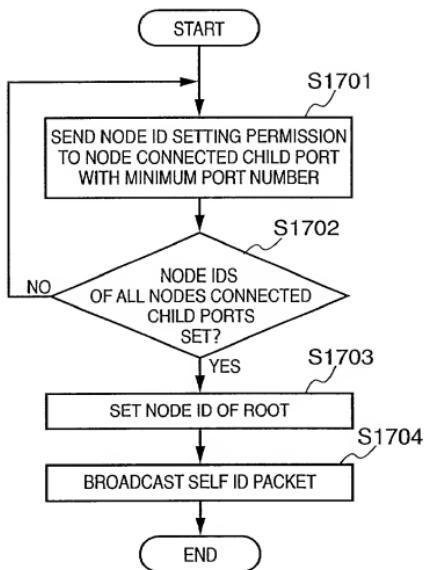


FIG. 17

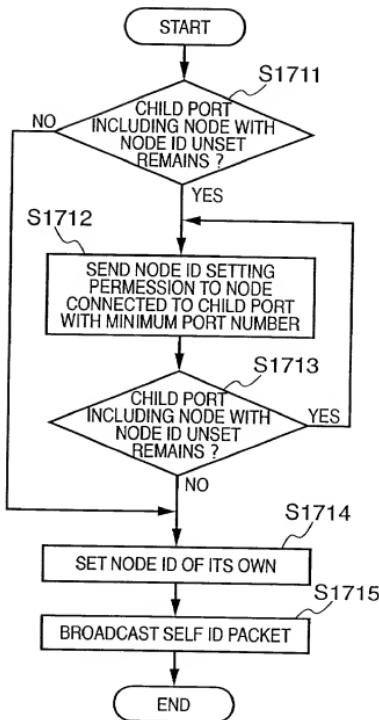


FIG. 18

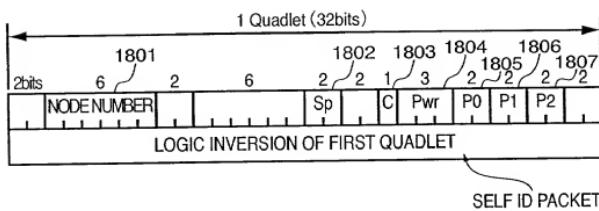


FIG. 19A

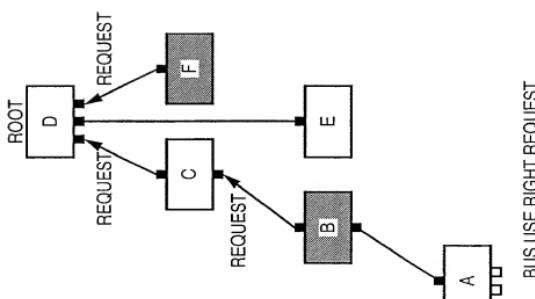


FIG. 19B

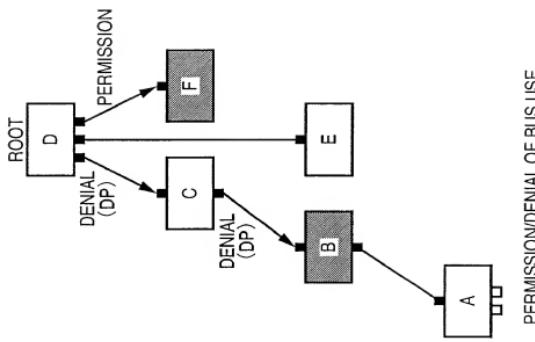


FIG. 20

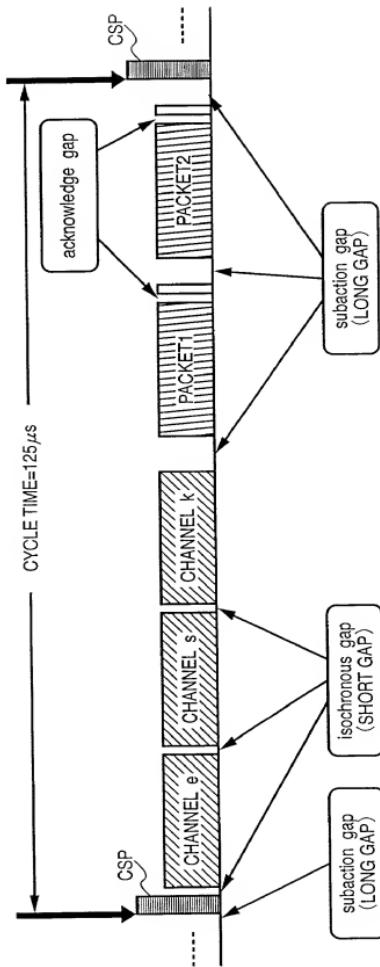


FIG. 21

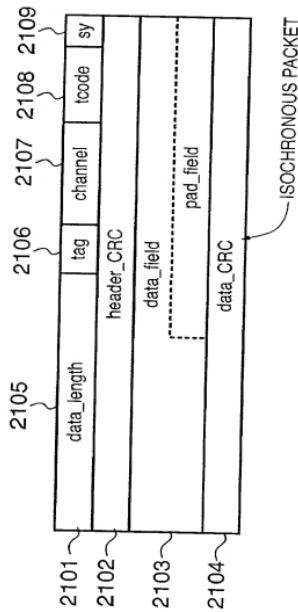


FIG. 22

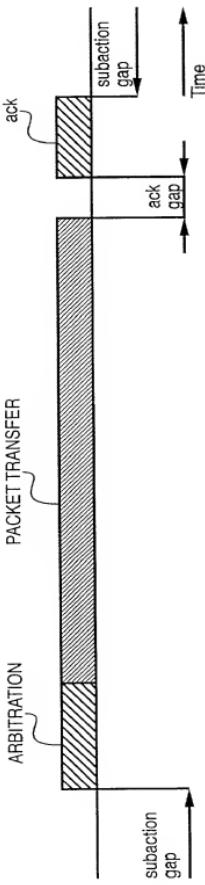


FIG. 23

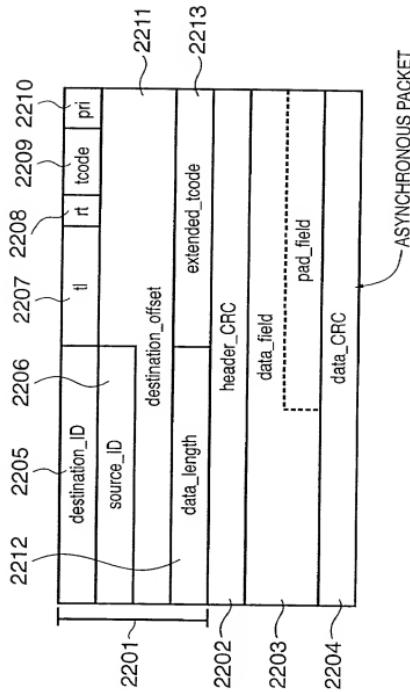


FIG. 24

ABBREVIATION	NAME	CONTENTS
destination_ID	destination identifier	INDICATING ID OF DESTINATION NODE (ONLY FOR ASYNCHRONOUS)
tl	transaction label	LABEL THAT INDICATES SERIES OF TRANSACTION (ONLY FOR ASYNCHRONOUS)
rt	retry code	CODE THAT INDICATES RE-SEND STATUS (ONLY FOR ASYNCHRONOUS)
tcode	transaction code	CODE THAT INDICATES TYPE OF PACKET (ONLY FOR ASYNCHRONOUS)
prt	priority	PRIORITY ORDER (ONLY FOR ASYNCHRONOUS)
source_ID	source identifier	INDICATION ID OF SOURCE NODE (ONLY FOR ASYNCHRONOUS)
destination_offset	destination memory address	MEMORY ADDRESS OF DESTINATION NODE (ONLY FOR ASYNCHRONOUS)
rcode	response code	RESPONSE STATUS (ONLY FOR ASYNCHRONOUS)
quadlet_data	quadlet (4bytes) data	4-BYTE LONG DATA (ONLY FOR ASYNCHRONOUS)
data_length	length of data	LENGTH OF data_field (EXCEPT pad bytes)
extended_tcode	extended transaction code	EXTENDED TRANSACTION CODE (ONLY FOR ASYNCHRONOUS)
channel	isochronous identifier	IDENTIFYING ISOCHRONOUS PACKET
sy	synchronization code	USED TO SYNCHRONIZE VIDEO AND AUDIO (ONLY FOR ISOCHRONOUS)
cycle_time_data	contents of the CYCLE_TIME register	VALUE OF CYCLE TIMER REGISTER OF CYCLE MASTER NODE (ONLY FOR CYCLE PACKET)
data_field	data +pad bytes	STORING DATA (ISOCHRONOUS AND ASYNCHRONOUS)
header_CRC	CRC for header field	CRC FOR HEADER FIELD
data_CRC	CRC for data field	CRC FOR DATA FIELD
tag	tag label	LABEL INDICATING FORMAT OF ISOCHRONOUS PACKET

FIG. 25

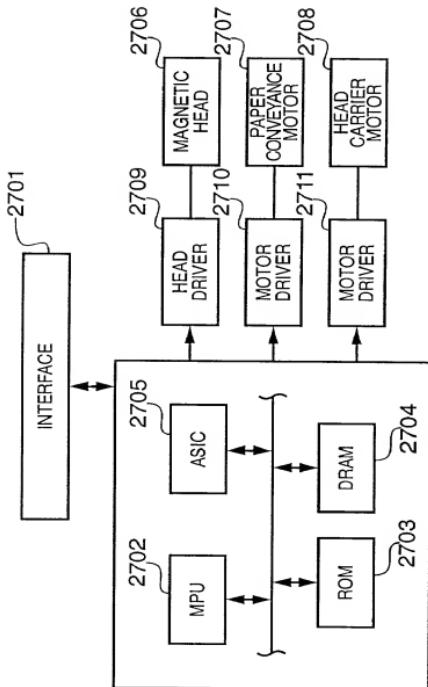


FIG. 26

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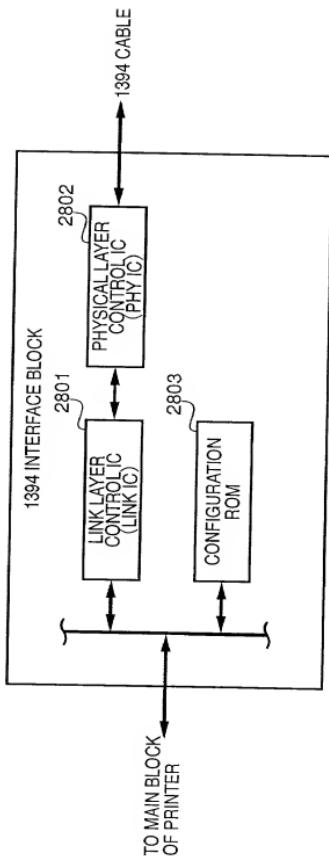


FIG. 27

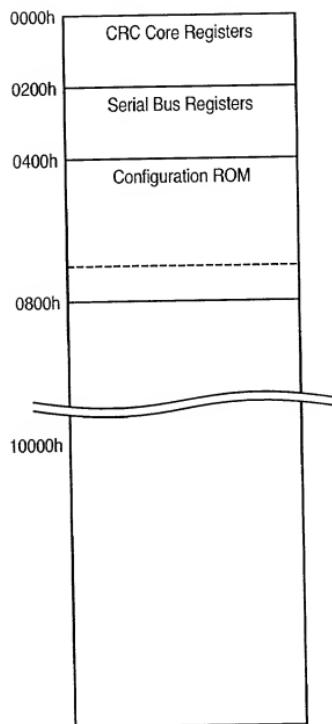


FIG. 28

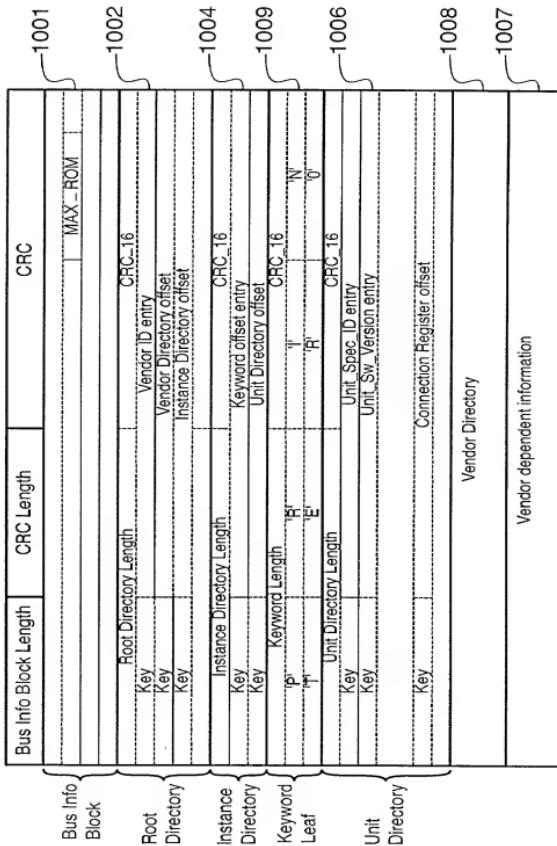


FIG. 29

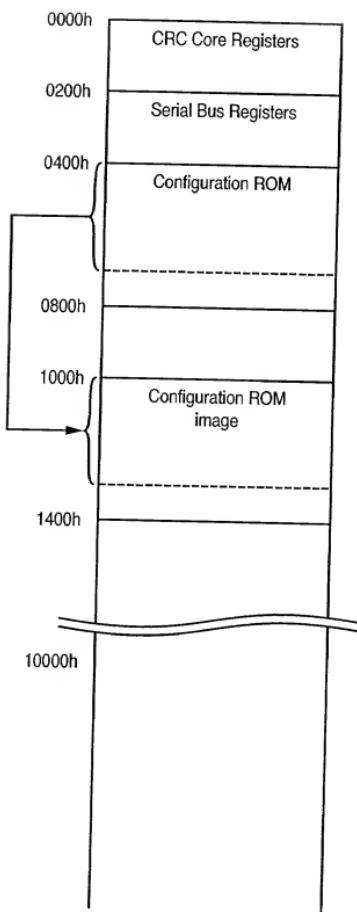
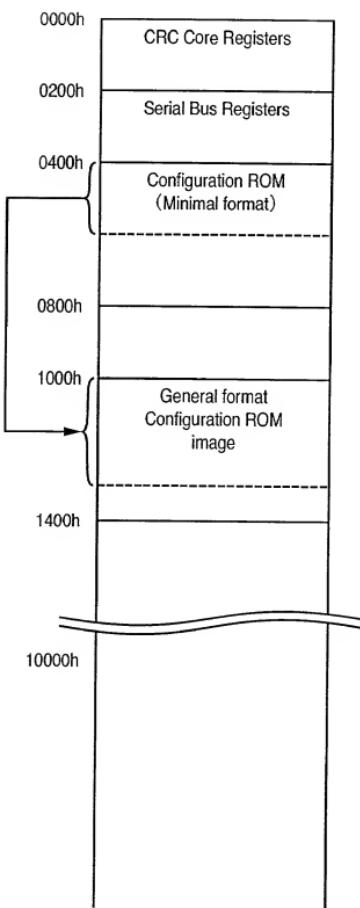


FIG. 30

	Bus Info Block Length	CRC Length	CRC
Bus Info Block			1001
Root Directory	216(Key)	ROM image offset	CRC_16
	Key	Vendor ID entry	
	Key	Vendor Directory offset	
	Key	Instance Directory offset	
Instance Directory	Instance Directory Length	Keyword offset entry	CRC_16
	Key	Unit Directory offset	
Keyword Leaf	Keyword Length	W	CRC_16
	C	V	
	U	E	
Unit Directory	Unit Directory Length	Unit Spec ID entry	CRC_16
	Key	Unit SW Version entry	
	Key	Connection Register Offset	
	Key	Vendor Directory	1008
		Vendor dependent information	1007

FIG. 31



F I G. 32

16	Vendor_ID (id)
386(<i>Key</i>)	ROM image offset
Vendor Dependent Information	

FIG. 33

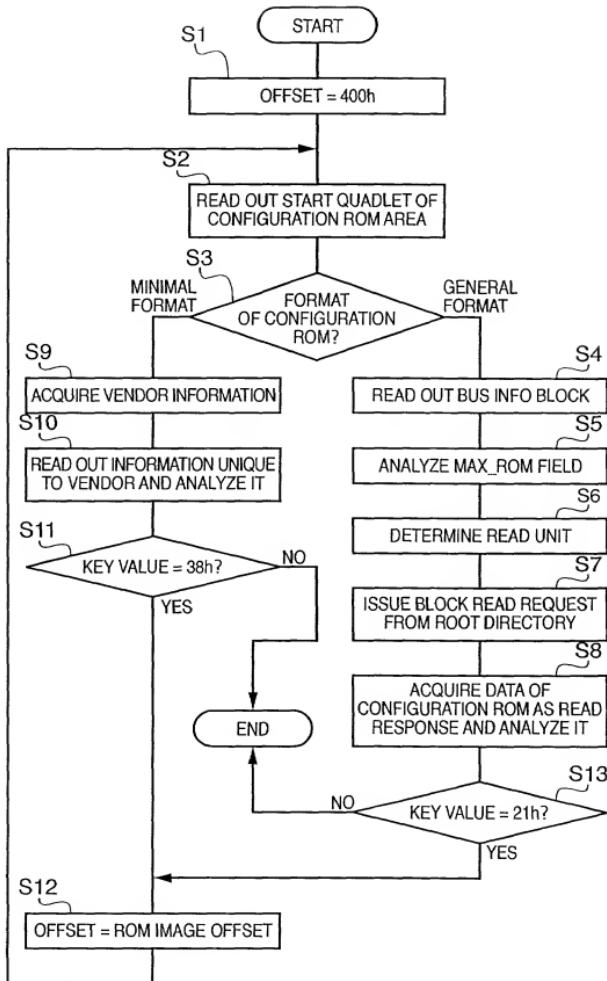


FIG. 34

